

Electronic Document Workflow (EDW) Business Case

Briefing for the Commander
Defense Contract Management
Command

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Purpose of EDW Business Case

To provide the rationale for deploying EDW DCMC command-wide by:

- 1) Providing a chronology of EDW development that led to deployment recommendations
- 2) Assessing DCMC process benefits attributable to EDW deployment
- 3) Projecting the costs for EDW deployment
- 4) Providing analysis of the costs to deploy EDW against potential benefits
- 5) Presenting deployment strategies and training options to the DCMC Commander for a business decision

Reasons to Deploy EDW

- Supports MRM #2, Moving to paper-free contracting by Jan 1, 2000
- Allows DCMC customers to “turn off” hard copy distribution of contracts
- Fills in the paperless “gap” prior to SPS full deployment to DCMC and all of its trading partners
- Enhances DCMC transition to EC environment

What is EDW?

- Its an electronic contract file management tool.
- It will provide our CAOs with the capability to receive contracts from the EDA website and administer them without recreating paper
- It is a commercial-off-the-shelf (COTS) software product
 - It has been customized for DCMC use (about 30% is custom code)
 - The advantage of COTS is that DCMC customization will be added to all future commercial upgrades (which we already own the license for)
 - With COTS we will be able to maintain state-of-the-art much more inexpensively than with internally developed systems
 - Universal Systems (the developer of Documetrix) is among the top 5 workflow/file management software providers

What is EDW? (cont.)

- It is workflow manager software
 - Documents can be received and routed by type to pre-designed workflows, thus getting information in the right hands much more quickly
 - Processes can be expedited and the potential is greatly enhanced for eliminating non-value added steps
- EDW software has been DCMC laboratory tested by field personnel at our Electronic Commerce/Electronic Document Interchange (EC/EDI) office in Boston
- EDW has also been environmentally tested at 5 DCMC Contract Administration Offices: Phoenix, Sikorsky, Boston, Clearwater and Textron

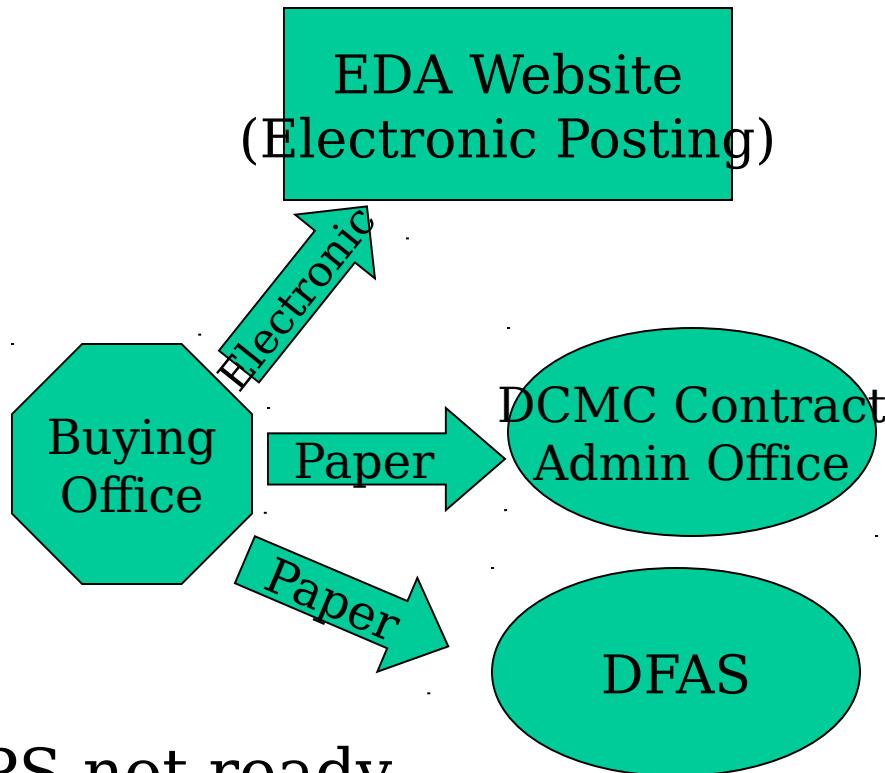
What is EDW? (cont.)

- EDW will help us avoid the “will be” contract administration task confronting DCMC when paper distribution of contracts from our customers ceases
 - Without EDW contract admin offices will be forced to:
 - Browse the web, find and download contracts
 - Print out the contracts and all attachments
 - Make 5 copies
 - Mail and distribute
 - Create a paper official file folder
 - Scan paper documents that we work with back in when we send correspondence and other forms and documents to our customers

EDW Background

- The following charts present a background on development of EDW including:
 - The advent of EDA and its impact on DCMC
 - Early EDW development efforts
 - Initial deployment to test sites
 - Government Acceptance Testing
 - Building the business case for EDW

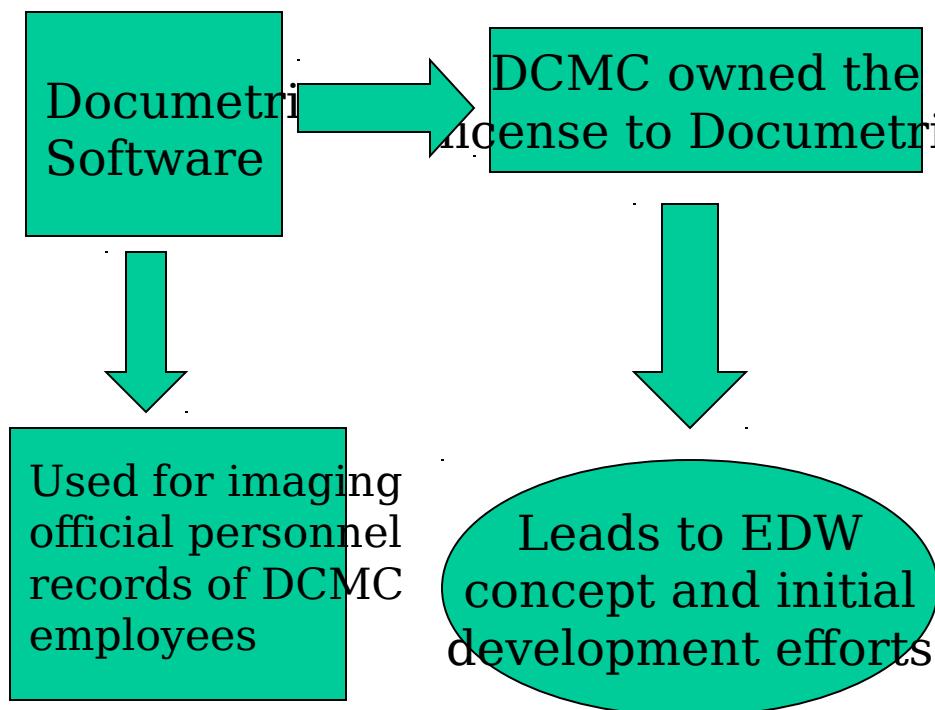
Electronic Document Access



SPS not ready until FY 2000 (or later) to perform contract admin functions

- Some buying offices began posting contracts to the DISA EDA website
- However, DCMC, DFAS, and most buying offices lacked systems for electronically retrieving contracts and modifications and then “folderizing” them
- Accordingly contracts continued to be printed by the buying offices, and distributed by mail

DCMC Begins to Develop Electronic Document Workflow



- DCMC had previously purchased “Documetrix” software from Universal Systems Inc. (USI) for file management and workflow capabilities for OPFF file folder imaging and management
- Efforts began in mid-1997 to customize Documetrix software to electronically retrieve, folderize and through workflow administer EDA contracts
- The project is called “Electronic Document Workflow” or EDW

EDW Initial Development Phase

Initial Testing of EDW began at **5 CAO test sites** in Oct 97

The initial “custom coding” of the commercial-off-the-shelf (COTS) Documetrix software began in 1997

Phoenix

Sikorsky

Textron

Boston

Clearwater

- Field Test of the custom developed product for contract administration conducted at 5 DCMC contract office test sites from Oct-Dec 1997

- Results of the initial field testing evaluated at a users meeting at DCMC Phoenix in Jan 1998.....Reports were presented by the test sites, the contractor, and Logistics Management Inc., a consultant providing project support to DCMC

LMI Report

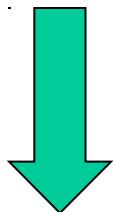
USI Report

DCMC Report

EDW Initial Development Phase (Continued)

Test Results:

{ “ It needs
more work” }



Users Group concurred that additional custom requirements were necessary prior to deployment of Documentum beyond the initial test sites.....

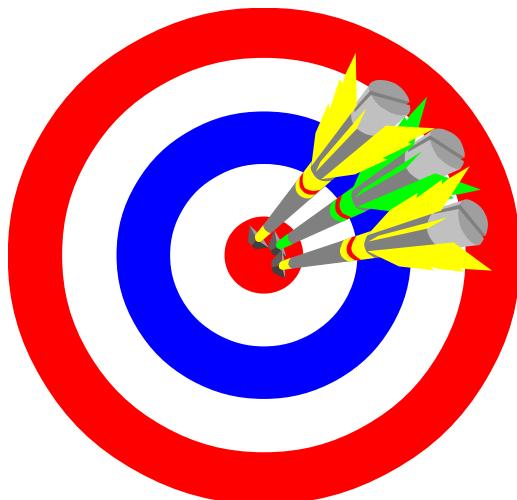
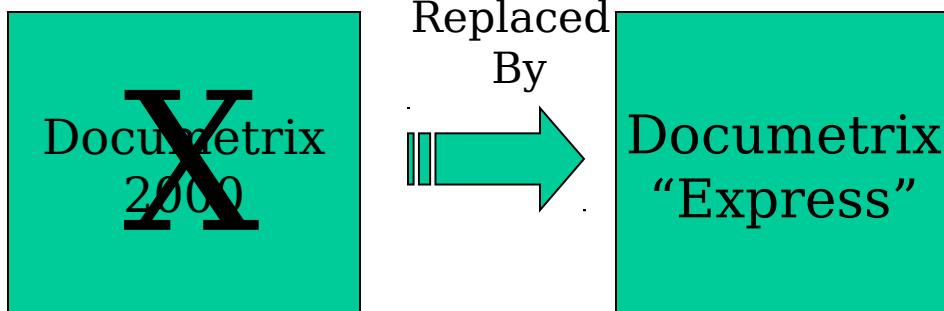
- Initial testing at the 5 DCMC CAOs produced mixed results
- Among the tested capabilities that did not successfully meet DCMC requirements were:
 - Retrieval of Formflow Docs
 - Ability to view 2 TIFF images simultaneously
 - Inability to “re-scan” separate pages and collate
 - Inability to delete duplicate documents except manually

96 Additional Detailed Requirements were submitted to USI in Feb 1998

Additionally, several items “passed” but were cumbersome, non-user friendly or too slow.

EDW Development

Phase II



**“90 %
Solution”**

- USI presented DCMC with the second customized version of Documetrix software called “Express” in May 1998
- Documetrix Express contained over 90% of DCMC’s requested additional capability
- Government acceptance testing of Express took place at DCMC’s Electronic Commerce/Electronic Data Interchange (EC/EDI) office in Boston, May 11-15, 1998

Government Acceptance Testing of Documetrix Express

Lab Test Results: 96% of the detailed requirements tested, passed. Only three requirements failed. (Two of which have since been corrected).

The EC/EDI Lab in Boston was configured as follows:

- 7 work stations, each staffed by two test team members, tested all the DCMC detailed requirements

The 7 work stations represented a cross-section of hardware configurations commonly found in DCMC CAOs (i.e., different amounts of RAM, different operating systems, etc)

Test team members were from DCMC EDW user sites, District F Directorate and the District FASST. The Test

Administrators were from DCMC HQ DCMC Paperless Team, with support from Logistics Management Incorporated.

Recommendation: Accept the Express software as a deliverable and deploy to the 5 test sites for continued environmental testing

Government Acceptance Testing

of Documetrix Express

- Successful lab test resulted in deployment of Express at each of the five CAO test sites in June-July, 1998
- A new operational team at each site was added to the deployment at each site. This was done to test the training materials on a team without prior Documetrix exposure
 - Benefits: This will more likely replicate training we go to future CAOs for initial deployment
 - Additionally, get a “fresh set of eyes” at each CAO looking at the product operationally
- Field Deployment was successfully completed at all sites by July 31, 1998

Business Case Development

Build the Business Case

Identification of Business Process Improvements

Vs.

- Infrastructure
- Deployment
- Training

Demonstrate Command Benefits
Sustainment

- Concurrent with the Phase II lab and environmental testing, DCMC's Paperless Contracting Team was building a business case for EDW deployment

- Key elements of the business case included: DCMC process benefits versus deployment costs (infrastructure, implementation, training), "gap" time period until SE becomes available, and key customer participation

- The Commander requested options for deployment strategy and training plan, which his final decision would be made on

Business Process Analysis

While numerous processes were reviewed, only two substantial results to warrant a separate breakout a

Contract Receipt
and
and Distribution

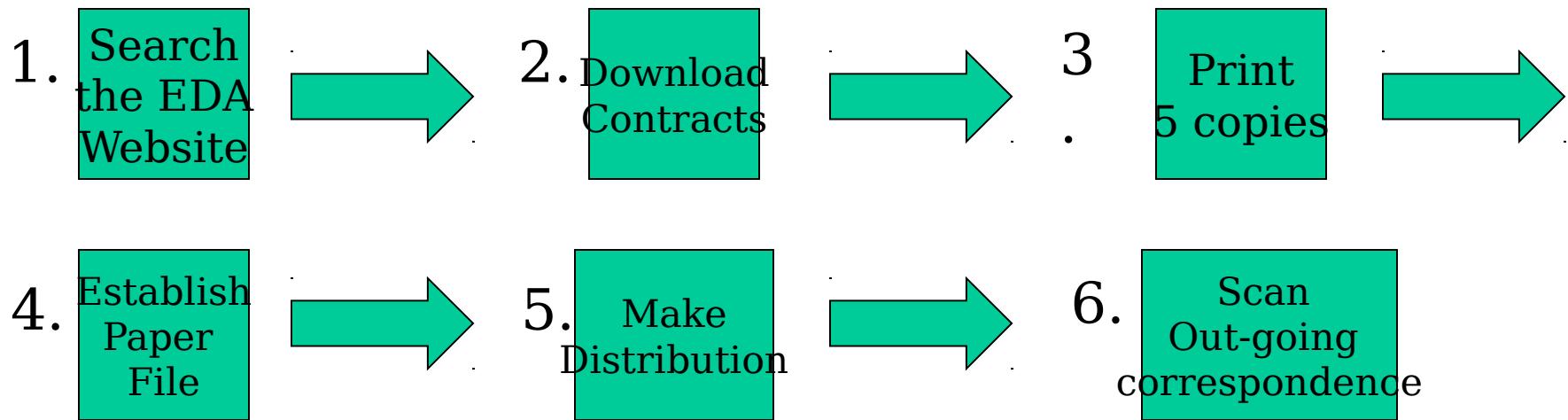
Contract Closeout
(Archiving Process)

Other processes mainly benefited by reducing the number of times paper would have crossed someone's desk. For example, DCAA audits are received and stored electronically, but this will result in minimal time savings in the final overhead

Business Process Analysis

Contract Receipt/Distribution Process

- If Documetrix is not deployed and paper copies of contracts are no longer distributed to DCMC, the process is impacted



Steps 1,2,3, and 6 are currently not part of DCMCs contract receipt, review and distribution process

Business Process Analysis

Contract Receipt/Distribution Process (cont.)

With Documetrix:

1. EDA web search automatically sends contracts to DCMC CAOs
2. Distribution is made automatically to team level
3. Automated Contract File is already established
4. Contract file is accessible, simultaneously by all team members
 - The mailroom contract distribution process is eliminated
 - The clerical process to establish the 5-part contract file folder is eliminated
 - Check-out of the official contract file is

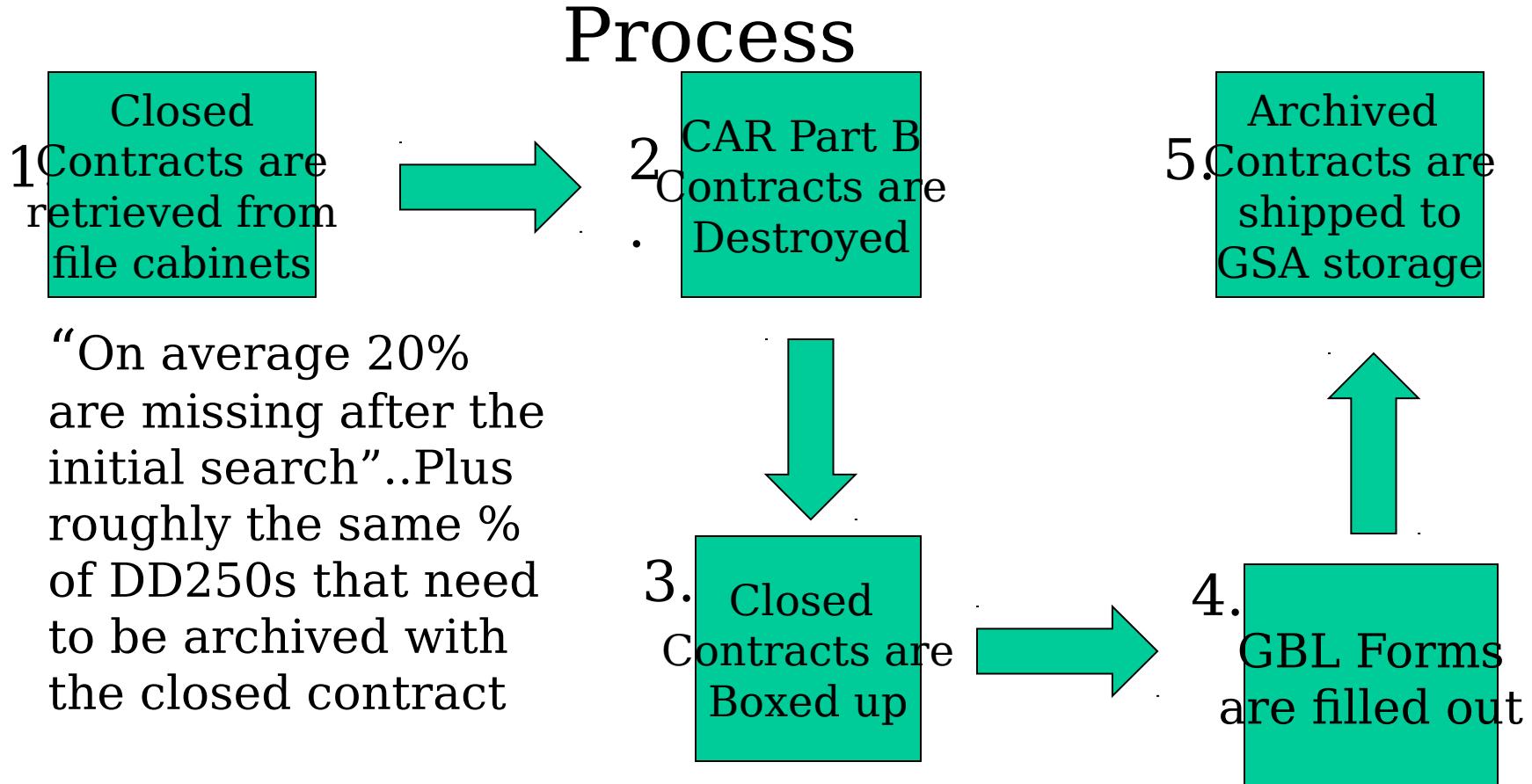
Business Process Analysis

Contract Receipt/Distribution Process (cont.)

- Logistics Management Institute performed a study on contract receipt/distribution process and came to the following conclusions:
 - Implementation of EDW will save an average of 15% on approximately 400,000 annual contract receipt actions.
 - This benefit, however, is offset by the cost to deploy the system to the CAOs and to train the personnel.
 - The estimated break-even point where process improvement benefits surpass the cost to deploy is approximately 18 months.
(More to come on this point later in the briefing)

Business Process Analysis

Contract Closeout (Archiving)



DCMC pays shipping and storage costs to GSA for archiving. Retrieving a document from the archives is costly and time consuming.

Business Process Analysis

Contract Closeout (Archiving) cont.

With EDW:

- Closed contracts are automatically stored electronically
- Lost/misplaced contracts or DD250s are eliminated
- CAR Part B contracts are automatically deleted when closed
- Archived documents are easily retrieved, saving literally weeks of requesting and waiting retrieval from

Battle Creek MI (or other GSA locations)
Check the EDW box for "closed" and the contract is automatically moved out of the active file and removed to the archives (or deleted if it is required to be filled out)

Business Process Analysis

Contract Closeout (Archiving) cont.

- Logistics Management Institute performed a study on contract closeout (archiving) process and came to the conclusions:
 - On the average, CAOs perform the contract archiving function approximately 8 hours per team per month (this is done on a Saturday, or at overtime expense... in on the weekends in jeans, etc).
 - This activity literally ceases with the implementation of electronic file folder capability of EDW
 - This benefit, however, is offset by the cost to deploy to the CAOs and to train the personnel
 - The estimated breakeven point where process implementation benefits surpass the cost to deploy is approximately

Business Process Analysis

LMI Cost/Benefit Report

LMI's report attempted to assess process improvement in terms of FTE savings

- LMI gathered deployment costs for things such as training, travel, contractor cost, system sustainment hardware, etc. and convert those expenses into FTEs for comparative purposes
(Note: Deployment costs are presented in detail later in this briefing)

- The primary purpose of the cost/benefit report enable DCMC to have a clearer picture of when to deploy EDW would deliver payback for the costs in excess of the deployment costs

Business Process Analysis

LMI Cost/Benefit Report Findings

- Opportunity Cost
 - Train DCMC Augmentees
 - User Classroom Training
 - User O-J-T Training
 - Administrator Workflow Manager Training
 - Learning Curve/Time lost
 - Additional Infrastructure
 - Contractor Provided Training, Management and Software Lifecycle Sustainment Cost
 - DCMC Costs
- Benefits
 - Contract Receipt and Distribution
 - Other Correspondence Receipt and Distribution
 - Document Processing time to include improved document location, reduced printing of all other contract file docs
 - Contract Closeout (Archiving)
 - Output of Correspondence (increased scanning to convert paper docs w/o EDW that would otherwise occur)

Business Process Analysis

LMI Cost/Benefit Report Findings (cont.)

<u>Opportunity Cost</u>	<u>FTE</u>	<u>Process Benefits</u>	<u>FTE</u>
DCMC Training .6		Contract Receipt	75
User Classroom	73	Contract File Input	1
OJT 55		Other CAO Paperless	153
Workflow Training 30		Output (Scanning) 30	
Training Team 35		Closeout (Archiving)	41
Learning Curve/Time Lost	83		
Load Legacy Conts. 2			
Infrastructure Cost 7.5			
Contractor Cost 23			

Note: In their report, LMI converted all costs and benefits into DCMC Full-Time Equivalents (FTEs)

Total Two Years Cost
(Converted to DCMC FTEs 309)

Total Two Years Benefits
(Converted to DCMC FTEs) 290

Actual payback time is 2.1 years

Business Process Analysis

LMI Cost/Benefit Report Findings

(cont.)

Key assumptions contained in the LMI report, based on discussions with DCMC process owners, customers and others in DOD, that influenced the results of the report's calculations of savings and benefits were:

Process Benefits were calculated against the “will be” that would occur if EDW was not deployed....In other words, “what would our processes cost us in FTEs if paper was still used off to DCMC by our customers and we continued to work with paper documents and manage paper contract files.”

Other assumptions included that contracts represent only the official file folder and other benefits will be achieved once that paper is turned off. (Nobody uses a typewriter anymore, so we should be receiving any computer generated docs electronically.)

Business Process Analysis

LMI Cost/Benefit Report Findings (cont.)

Given that LMI's report showed a **breakeven point of approximately two years**, what then is the benefit of EDW will be deployed before it too becomes (possibly) a legacy system? **When will it be superseded by SPS?**

(See next chart depicting SPS deployment)

(It should be noted that LMI caveated their report to suggest that they only provided a quantitative breakeven point. Consideration for subjective factors such as moving to an EC environment, workflow experience, customer satisfaction, etc. could lower the breakeven point as much as 1 year.

EDW/SPS Deployment Projected Timeframes

EDW Projected Deployment



SPS 5.0 Projected



Unanswered Questions regarding SPS deployment:

- 1) Will 5.0 version contain sufficient contract administration requirements?
 - 2) Will customization of workflow module in SPS occur to replace LMS?
 - 3) What are our customers' firm schedules for 5.0 deployment? (D)

SPS Deployment Analysis

DCMC projects full SPS deployment within 6 months of full deployment of EDW

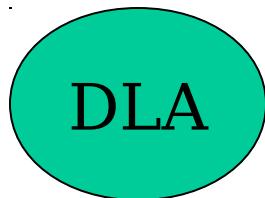
However, deployment to DCMCs principal trading partners (the Inventory Control Points, or ICPs), will likely not be fully completed for another year beyond deployment to DCMC CAOs. (18 months)

The following charts show a breakdown of the amount of SPS that will likely continue to be administered with EDW, even after the full deployment of SPS to DCMC CAOs (until the ICPs are fully deployed)

Effect of Delayed SPS Deployment to ICPs

Inventory Control Points for the purpose of this exercise
CECOM, ATCOM, NAVICP Philadelphia and Mechanicsburg,
USAF ALCs, and DLA activities in Columbus, Richmond,
Dayton and Philadelphia.

(Note: While CECOM/ATCOM are
not wholly “ICPs”, all Army PADDS users are being treated
such for SPS deployment purposes.)



Effect of Delayed SPS Deployment to ICPs

Selected DCMC sites with high volume/% of ICP

<u>Location</u>	<u>Contracts</u>	<u># ICP Contracts</u>	<u>% of Business</u>
Boeing Helicopter		1,510	94.3
Lockheed-Martin, Ft. Worth		2,980	89.5
Clearwater	2,540		80.1
Sikorsky		2,790	79.0
Wichita	1,280		78.5
Reading		1,550	78.2
San Antonio	4,420		77.8
Springfield	3,940		73.9
Chicago		5,580	73.2
Dallas	9,380		73.0
Long Island	4,820		72.5
Santa Ana		12,310	70.7
Total DCMC		177,265	49.5

Effect of Delayed SPS Deployment to ICPs

- 45 of 75 DCMC CAOs have 50% or more of their business with ICP buying offices
- In total, DCMC administers nearly 200,000 ICP contracts at any one time, representing 49.5% of total business volume.
- Since SPS deployment won't be completed at the ICP sites by June 2001, EDW will have already been fully deployed to DCMC over 18 months. Some early deployed sites benefit by nearly 28-30 months.

EDW Deployment Strategy

Business Case Presentation

- DCMCs Paperless Contracting Team presented the EDW business case to several internal DCMC management teams in August before receiving approval to present the business case to the Commander
- The business case primarily focused on deployment strategies, training options and cost
- DCMC Teams briefed included:
 - The Information Technology Joint Steering Group Aug 17, 1998
 - The Business Process Team (BPT) Aug 20, 1998
 - The Resource Utilization Council (RUC) Aug 25, 1998

EDW Deployment Strategy

“How to Best Deploy EDW”

- Fast? Before 1/1/2000? Sooner?
 - Limiting Factors # training rooms, personnel, reasonable TDY expectations for qualified trainers
- All Sites? Select Sites? 80% Solution?
 - Limiting Factors \$ for all sites, when will paper contracts turn off?
- Contractor Training? DCMC Training? Train the Trainer?
 - Limiting Factors \$ for training, past experience, # of good trainers
- Cost? \$8 million? \$5 million? \$ 2 million?
 - Limiting Factor FY 99 budget reality

Deployment Strategies

- 1) Deploy to CAOs that comprise 80% of DCMC contract count (21 sites)
- 2) Deploy to CAOs that comprise 80% of DCMC unliquidated obligation (26 sites)
- 3) Deploy to all CAOs

Training Options

- A) Contractor Provided 2-day classroom
FASST team provided over-the-shoulder \$\$\$
- B) DCMC/Contractor 2-day classroom,
local CAO provides over-the-shoulder \$\$
- C) DCMC/Contractor 1-day classroom,
FASST provides over-the-shoulder \$

Deployment Strategy #1

80% Contract Sites

Advantages

- Fastest to Complete (3 to 6 months)
- Prioritizes sites with greatest risk
- Captures 60% of DCMC workforce

Disadvantages

- Partial Deployment
- Limited to large, former “AO” sites
- Many large contractor trading partner sites excluded
- Start w/ most complex sites

Deployment Strategy #2

80% ULO Sites

Advantages

- Fast completion
(4 to 7 months)
- Better representation of DCMC org mix
- Involves major contractor sites
- Lowest cost option

Disadvantages

- Partial deployment
- Only 44% contracts on hand
- Only 52% of workforce

Deployment Strategy #3

“All CAOs”

Advantages

- Covers 100% sites
- Selective prioritization
- Deployment/training flexibility
- Command consistency

Disadvantages

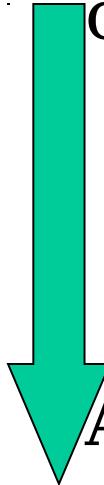
- Costs the most
- Longest to complete (9 to 13 months)

Cost of Deployment

	<u>80% Contracts</u>	<u>80% ULO</u>	<u>All CAOs</u>
Option A	\$ 4.2 Million Complete 6/99	\$ 4.0 Million Complete 7/99	\$ 6.6 Million Complete 1/00
Option B	\$ 3.3 Million Complete 5/99	\$ 3.2 Million Complete 6/99	\$ 5.0 Million Complete 12/99
Option C	\$ 2.5 Million Complete 3/99	\$ 2.4 Million Complete 4/99	\$ 3.7 Million Complete 9/99

Risk Consideration

- Question: When will our customers “turn off” paper?
 - Concern is that DCMC might be “outpacing” our customers and going paperless too quickly to achieve sufficient benefits



Answer: They already are capable. They are only waiting for DCMC to deploy EDW (Statistics of EDA usage follow)

EDA Website Activity

August 1-31, 1998

- 58,001 new contracts, ACO mods, PCO mods posted during the month

Leading Activities

DISC Philadelphia, PA	10,764
TACOM Warren, MI	6,742
DGSC Richmond, VA	4,488
DESC Dayton, OH	3,977
DSCC Columbus, OH	3,506
NAVSUP Bremerton, WA	3,036
NAVICP Mechanicsburg, PA	1,242

EDA Website Usage

- Who's Using EDA?
 - PAADS > Army
 - ITIMP > Navy
 - DPACS > DLA
 - NAVSEA
 - NAVAIR
 - DCMC
- Who's Not on EDA?
 - CONWRITE > USAF
 - ACPS > USAF
 - BCAS (Base Cont.)
 - SAACONS (Army)

According to DFAS/EDA 70% of DCMC administered contracts are available on DISA website. Expect 85% by 12-31-98.

Recommendation

Deployment Strategy #3 -- “All CAOs”
Training Option “B” -- DCMC/Cont./CA

Advantages

80% by 9/99

100% by 12/99

Deploys to all CAOs

Tailored Deployment

Flexible Strategy

Cross-Section of Training

Large sites not “front-loaded”

Expected Cost

FY 1998	\$.15M
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FY 1999	\$ 3.9M
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FY 2000	\$ 1.6M
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FY 2001	\$.6M
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NEXT

Note: Recommended strategy exceeds available budget
\$1.9 million in FY 1999

Next Steps

- Approach OSD for additional funding
- Go over detailed deployment strategy (on option chosen) with key District Management and ITLCMG
- Finalize detailed site deployment plan
- Finalize contract with USI by 9-30-98
- Identify training team assignments
- Conduct advance training for augment
- Make initial site visits to upcoming CA
- Finalize IOC deployed sites by 11-30-98
- Enjoy the Winter Holidays
- Begin EDW deployment 1-11-99